S99P1271US00

FIG. 1

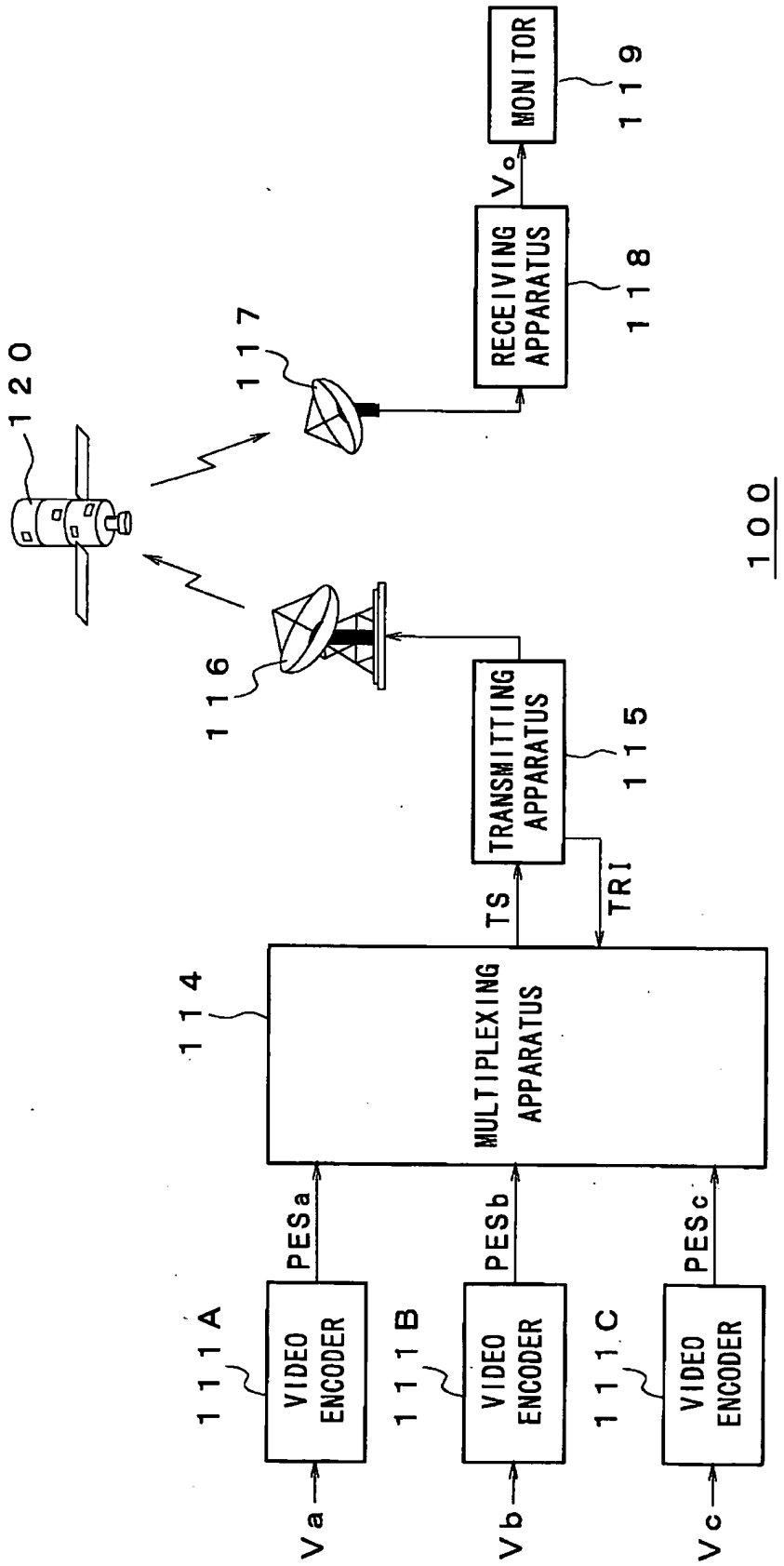


FIG. 2

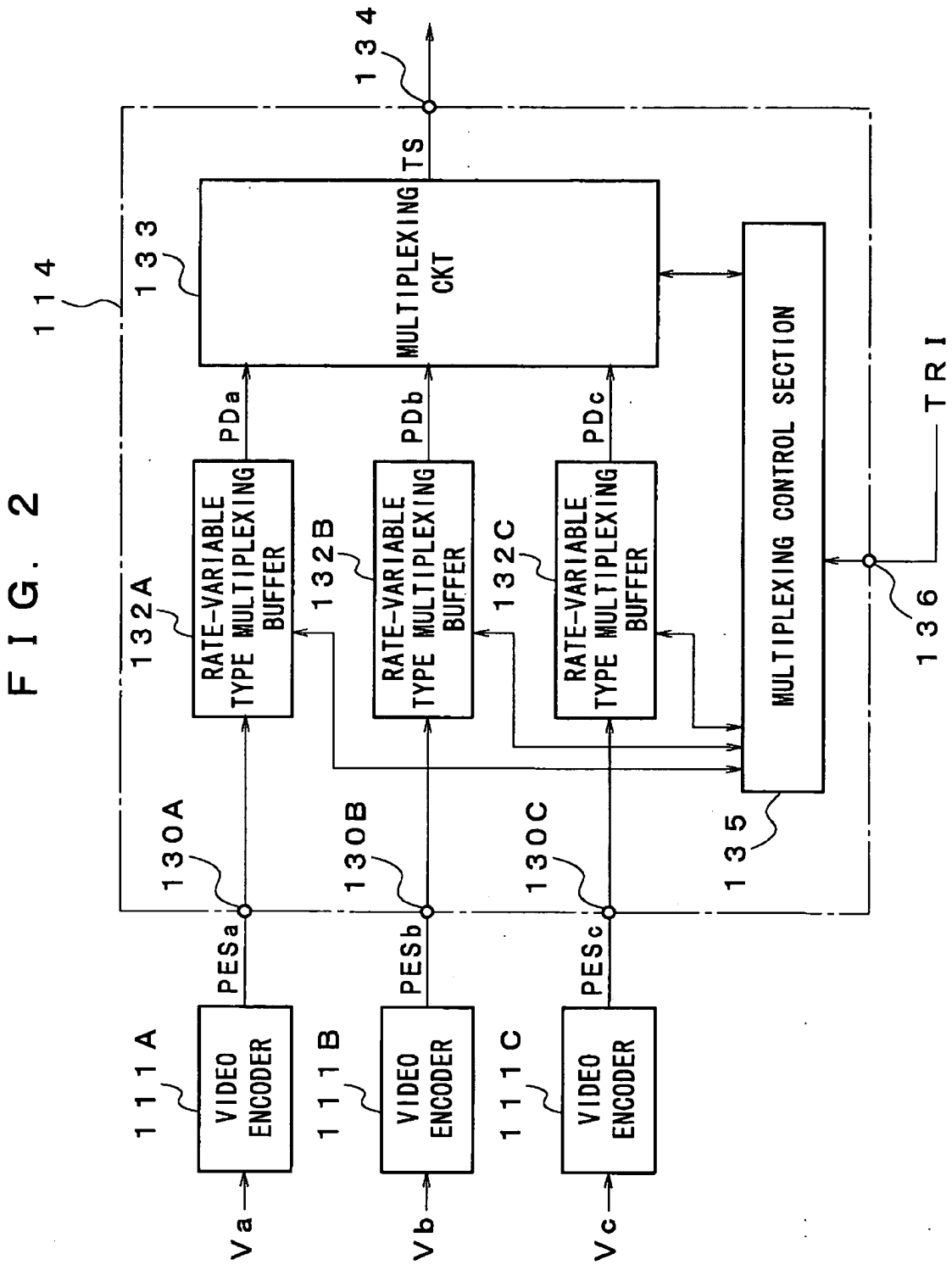

114
134
TS
133
MULTIPLEXING CKT
PDa
PDb
PDc
132A
RATE-VARIABLE TYPE MULTIPLEXING BUFFER
132B
RATE-VARIABLE TYPE MULTIPLEXING BUFFER
132C
RATE-VARIABLE TYPE MULTIPLEXING BUFFER
MULTIPLEXING CONTROL SECTION
TRI
136
135
130A
130B
130C
PESa
PESb
PESc
111A
VIDEO ENCODER
111B
VIDEO ENCODER
111C
VIDEO ENCODER
Va
Vb
Vc

FIG. 3

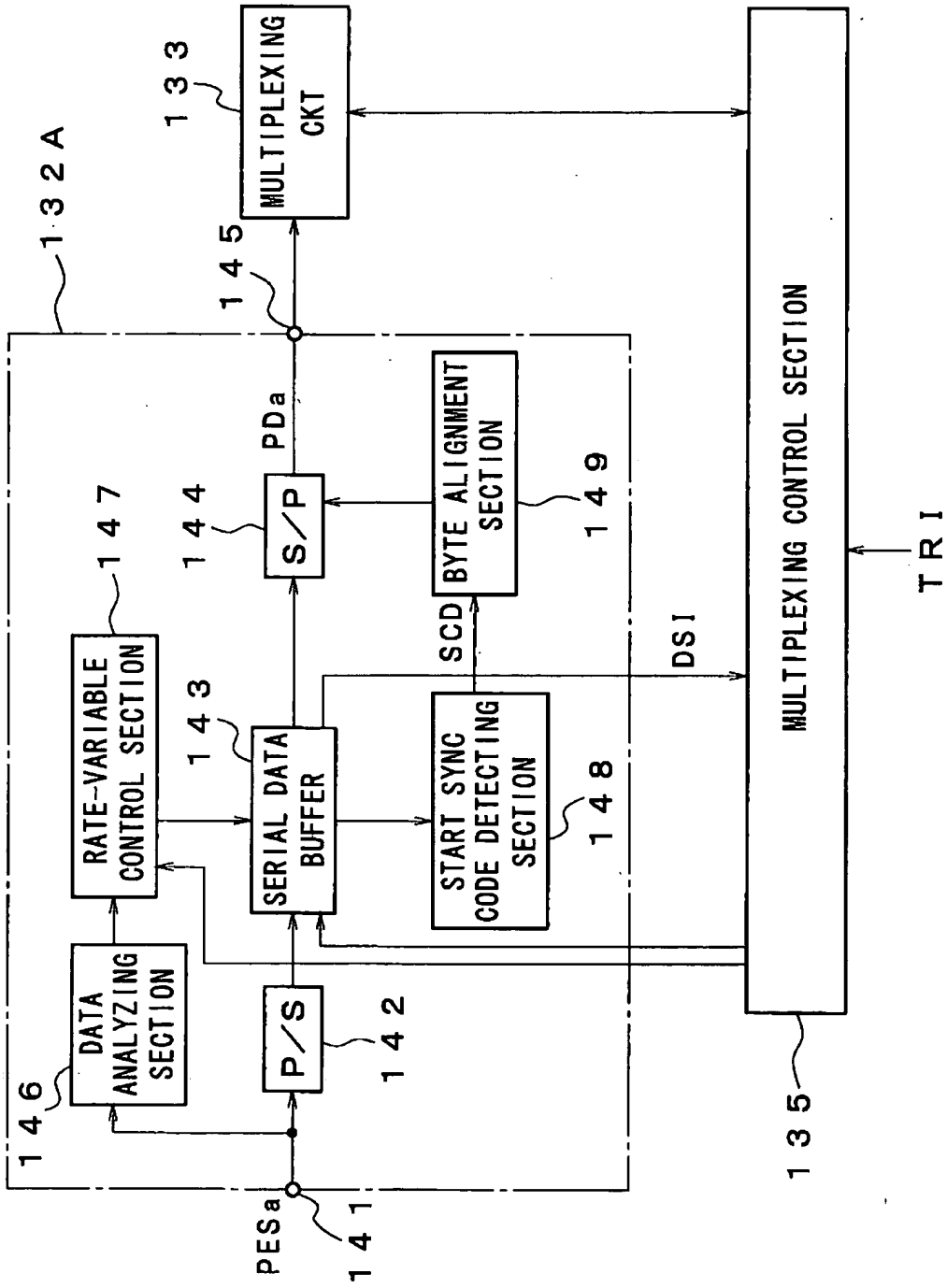

MULTIPLEXING CKT
133
132A
145
PDa
144
S/P
BYTE ALIGNMENT SECTION
149
147
RATE-VARIABLE CONTROL SECTION
143
SERIAL DATA BUFFER
SCD
DSI
START SYNC CODE DETECTING SECTION
148
MULTIPLEXING CONTROL SECTION
TRI
DATA ANALYZING SECTION
146
P/S
142
135
PESa
141

FIG. 4

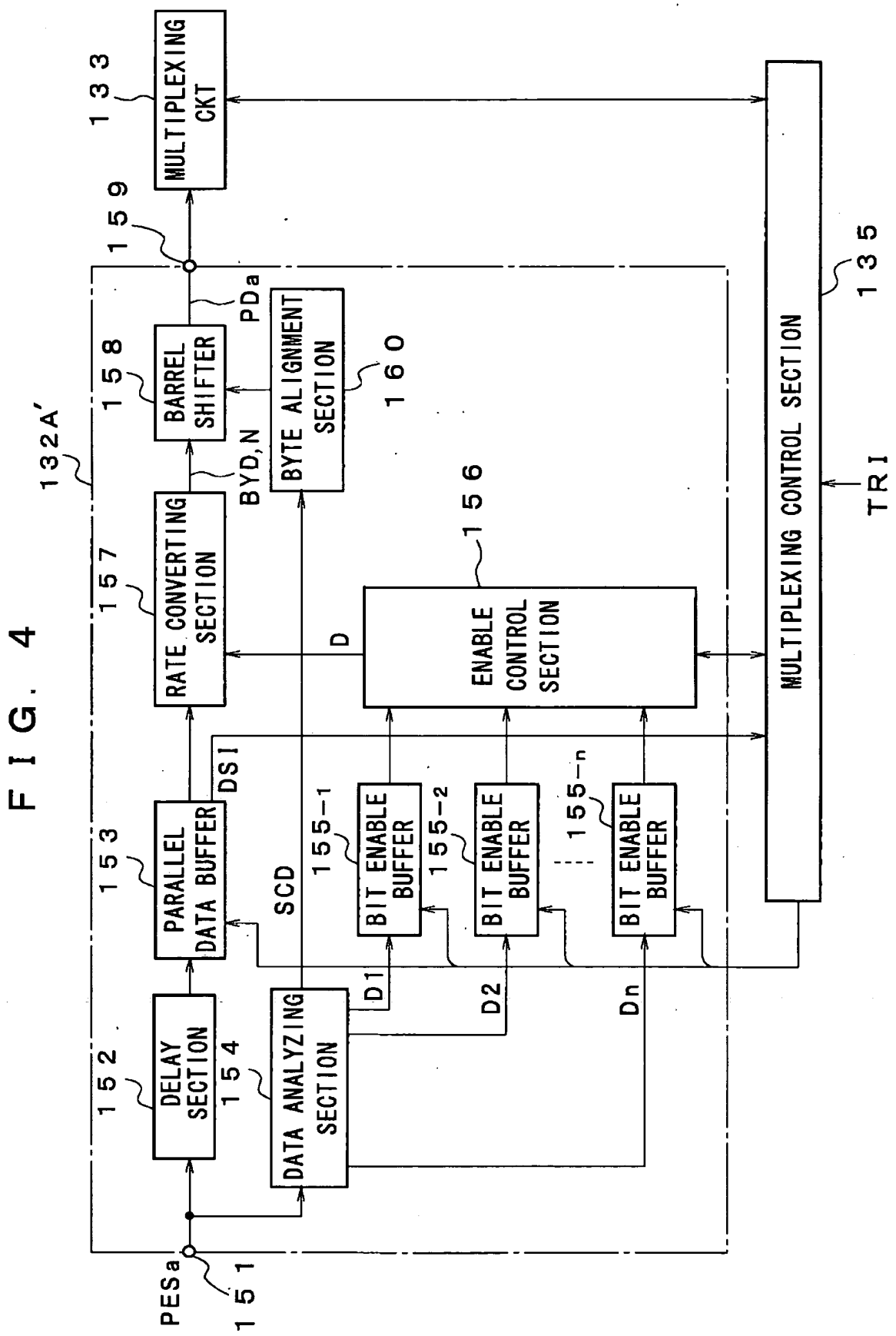

132A'
133
MULTIPLEXING CKT
159
158
BARREL SHIFTER
PDa
160
BYTE ALIGNMENT SECTION
135
MULTIPLEXING CONTROL SECTION
TRI
BYD,N
157
RATE CONVERTING SECTION
D
156
ENABLE CONTROL SECTION
153
PARALLEL DATA BUFFER
DSI
SCD
155-1
BIT ENABLE BUFFER
155-2
BIT ENABLE BUFFER
155-n
BIT ENABLE BUFFER
D1
D2
Dn
152
DELAY SECTION
154
DATA ANALYZING SECTION
PESa
151

FIG. 5

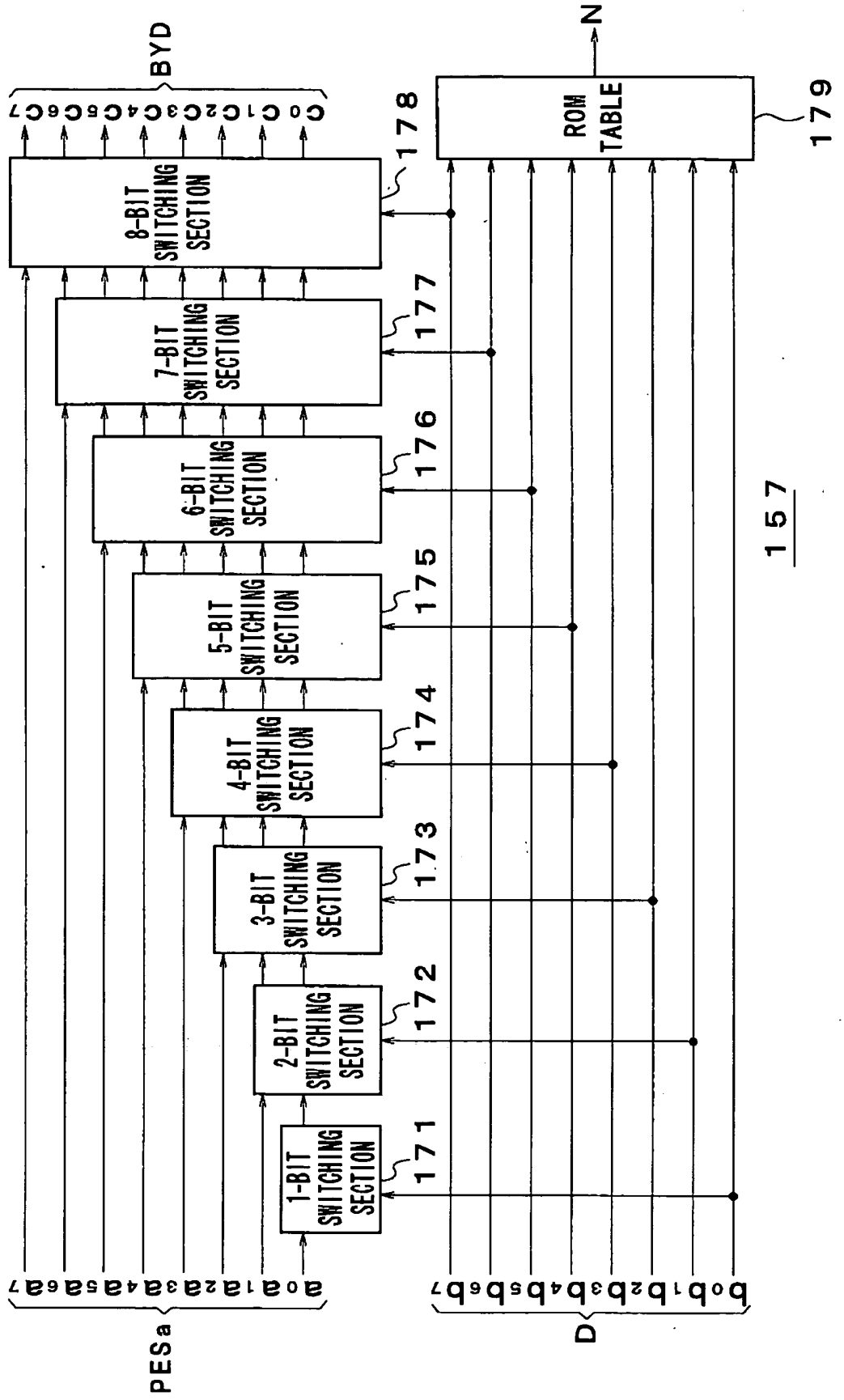

N
BYD
ROM TABLE
179
178
8-BIT SWITCHING SECTION
177
7-BIT SWITCHING SECTION
176
6-BIT SWITCHING SECTION
175
5-BIT SWITCHING SECTION
174
4-BIT SWITCHING SECTION
173
3-BIT SWITCHING SECTION
172
2-BIT SWITCHING SECTION
171
1-BIT SWITCHING SECTION
157
PESa
D

FIG. 6

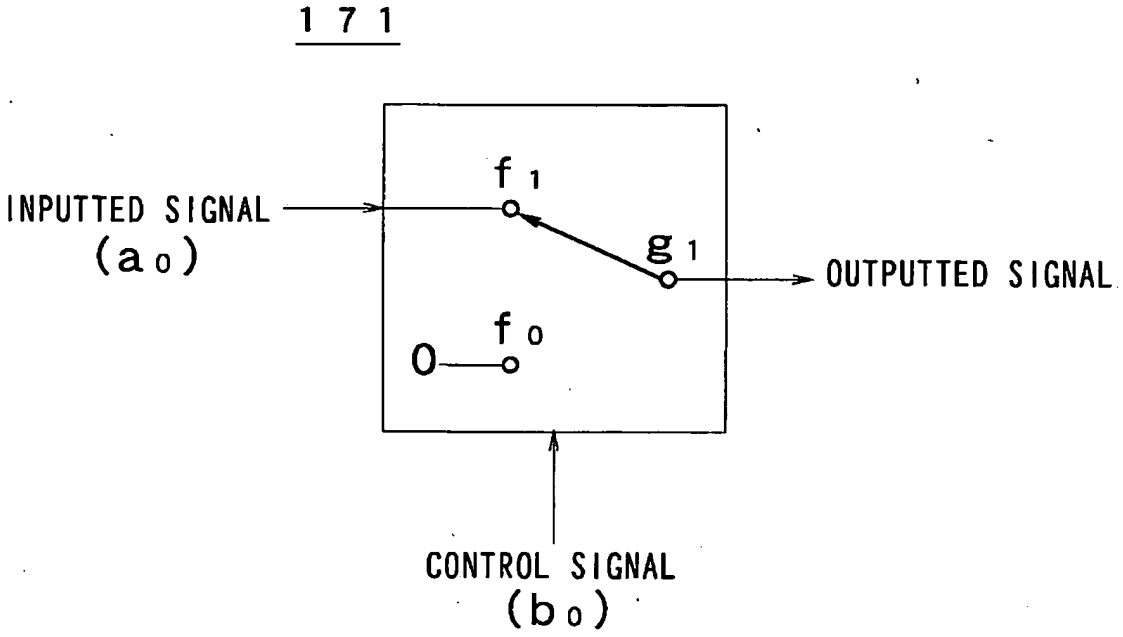


FIG. 7

INPUTTED SIGNAL (a_0)	CONTROL SIGNAL (b_0)	OUTPUTTED SIGNAL
0	0	0
1	0	0
0	1	0
1	1	1

FIG. 8

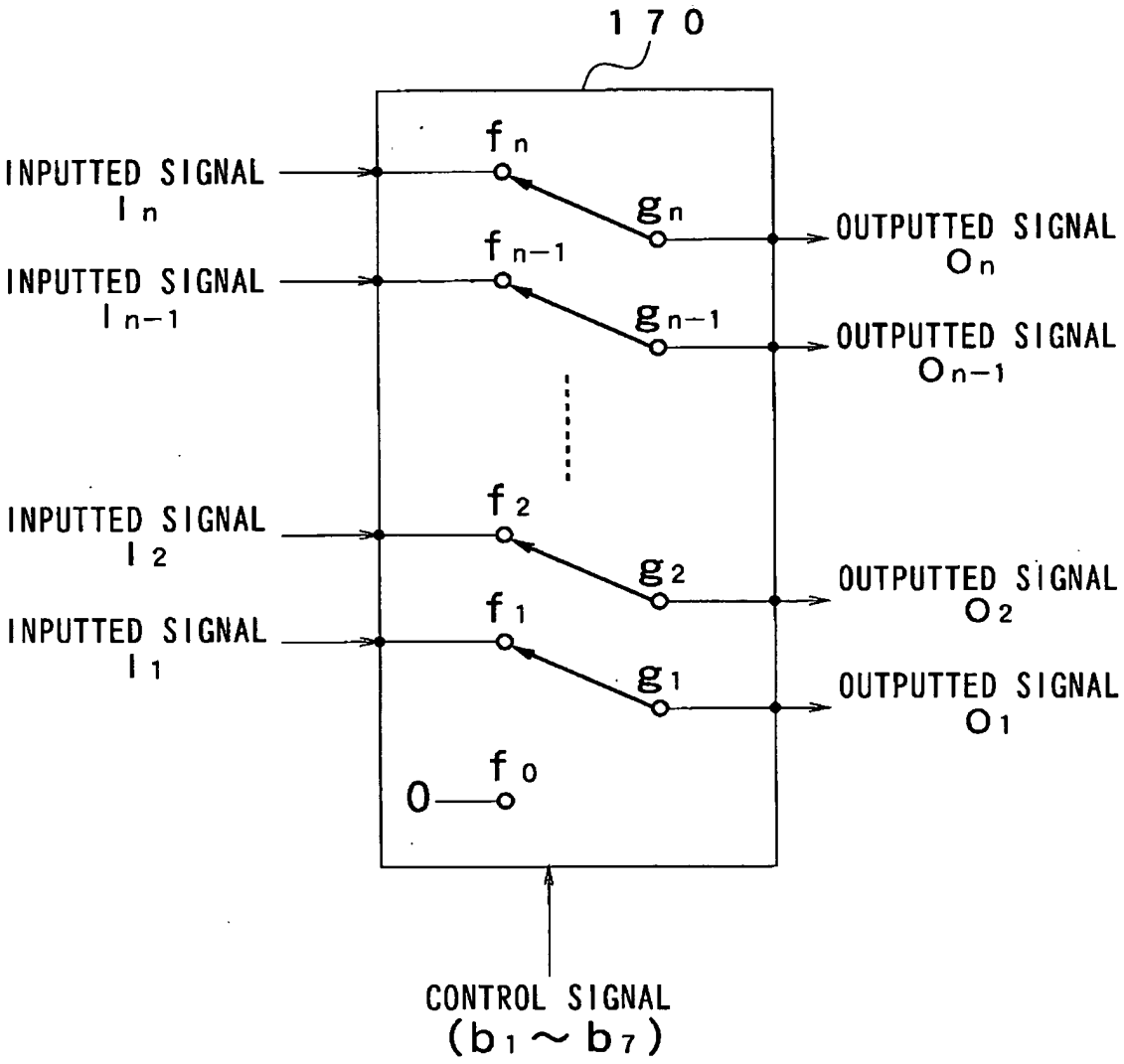


FIG. 9

CONTROL SIGNAL	OUTPUTTED SIGNAL On
0	In-1
1	In

WHERE $I_0 = 0$

FIG. 10

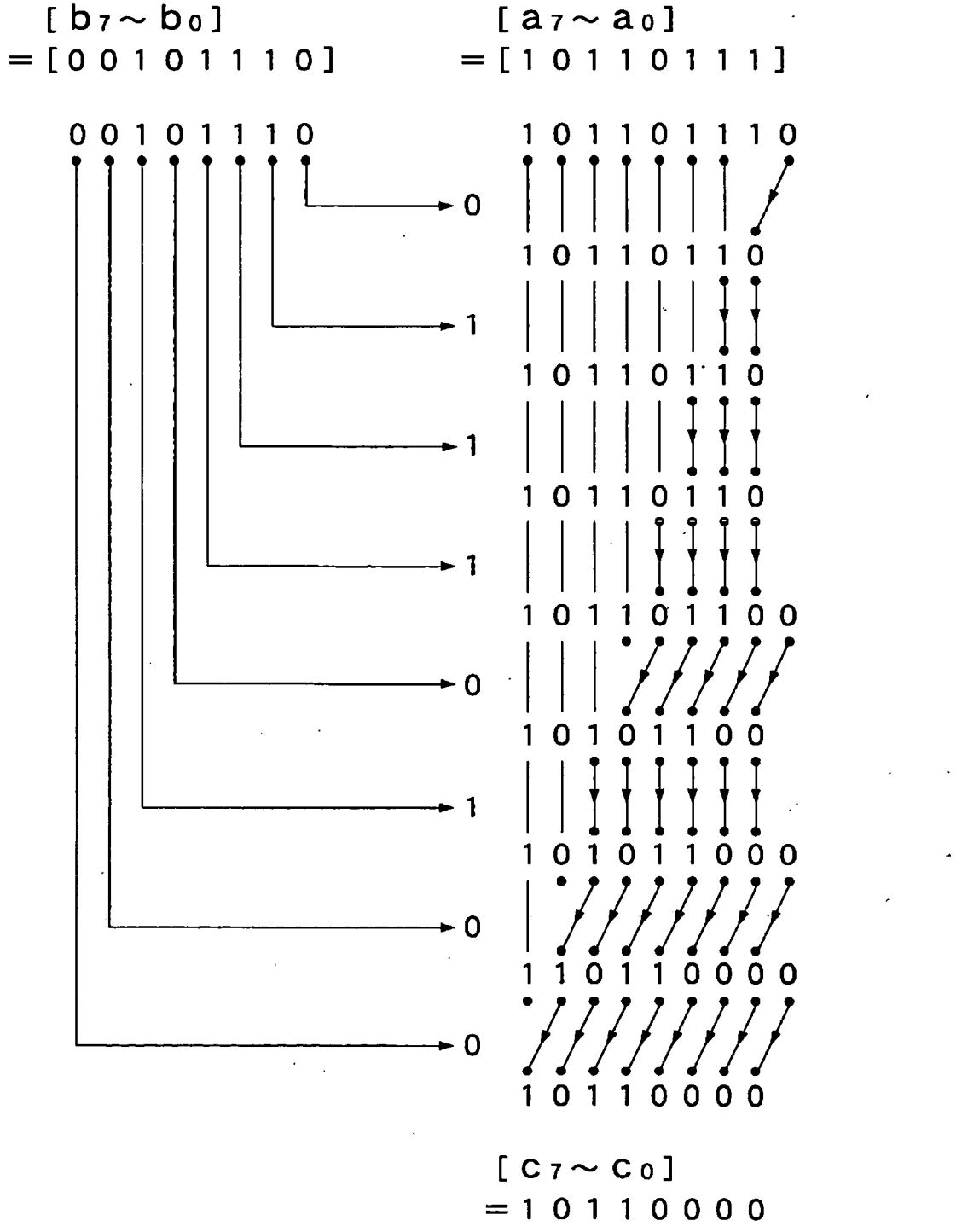

[b7～b0]
=[00101110]
[a7～a0]
=[10110111]
00101110
10110110
0
1
1
1
0
1
0
0
10110111
10110110
10110110
10110110
10110100
10101100
10101100
11011000
10110000
[C7～C0]
=10110000

FIG. 11

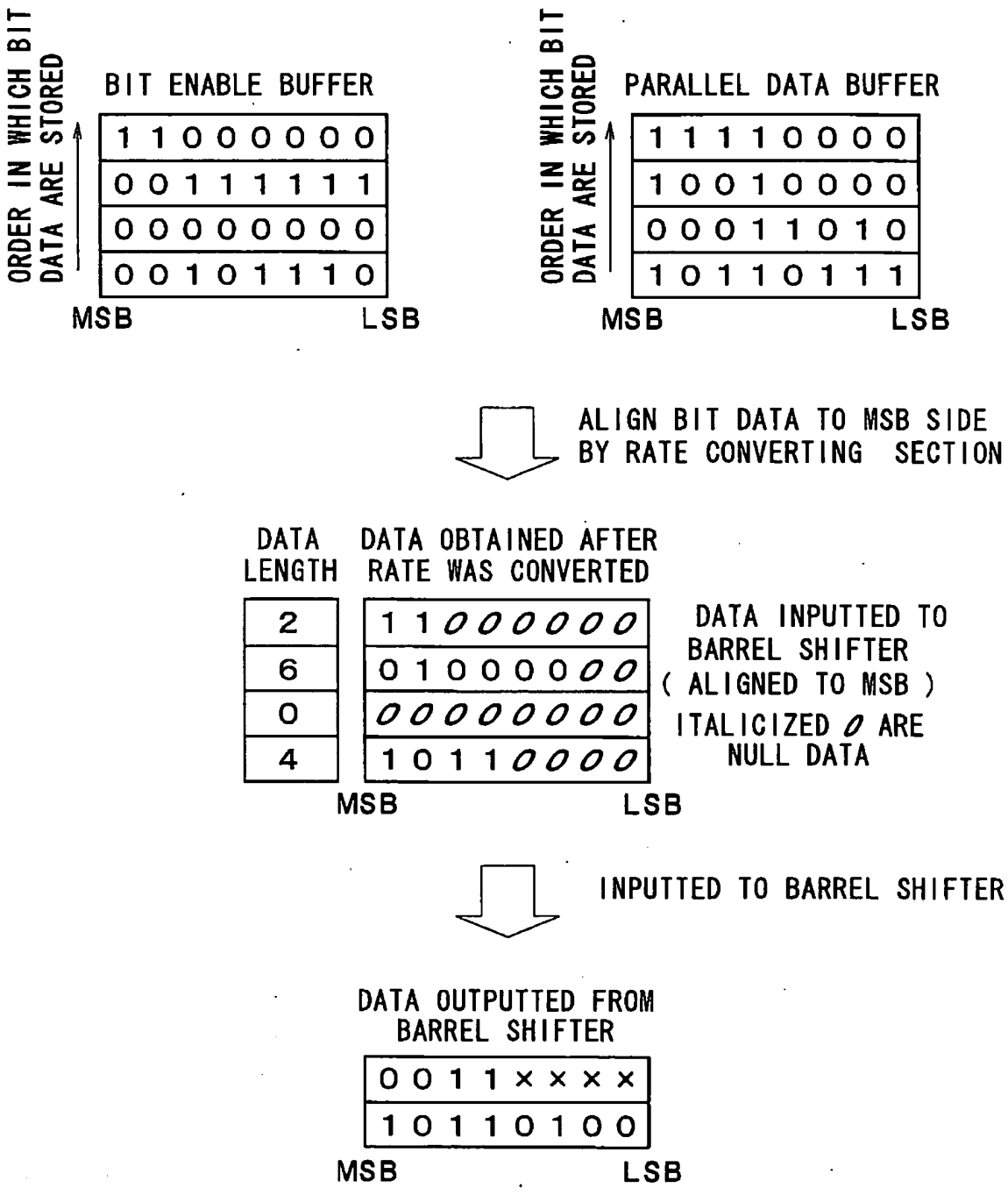

ORDER IN WHICH BIT DATA ARE STORED
BIT ENABLE BUFFER
1 1 0 0 0 0 0 0
0 0 1 1 1 1 1 1
0 0 0 0 0 0 0 0
0 0 1 0 1 1 1 0
MSB
LSB
ORDER IN WHICH BIT DATA ARE STORED
PARALLEL DATA BUFFER
1 1 1 1 0 0 0 0
1 0 0 1 0 0 0 0
0 0 0 1 1 0 1 0
1 0 1 1 0 1 1 1
MSB
LSB
ALIGN BIT DATA TO MSB SIDE BY RATE CONVERTING SECTION
DATA LENGTH
DATA OBTAINED AFTER RATE WAS CONVERTED
2
6
0
4
1 1 0 0 0 0 0 0
0 1 0 0 0 0 0 0
0 0 0 0 0 0 0 0
1 0 1 1 0 0 0 0
MSB
LSB
DATA INPUTTED TO BARREL SHIFTER (ALIGNED TO MSB)
ITALICIZED 0 ARE NULL DATA
INPUTTED TO BARREL SHIFTER
DATA OUTPUTTED FROM BARREL SHIFTER
0 0 1 1 × × × ×
1 0 1 1 0 1 0 0
MSB
LSB

FIG. 12

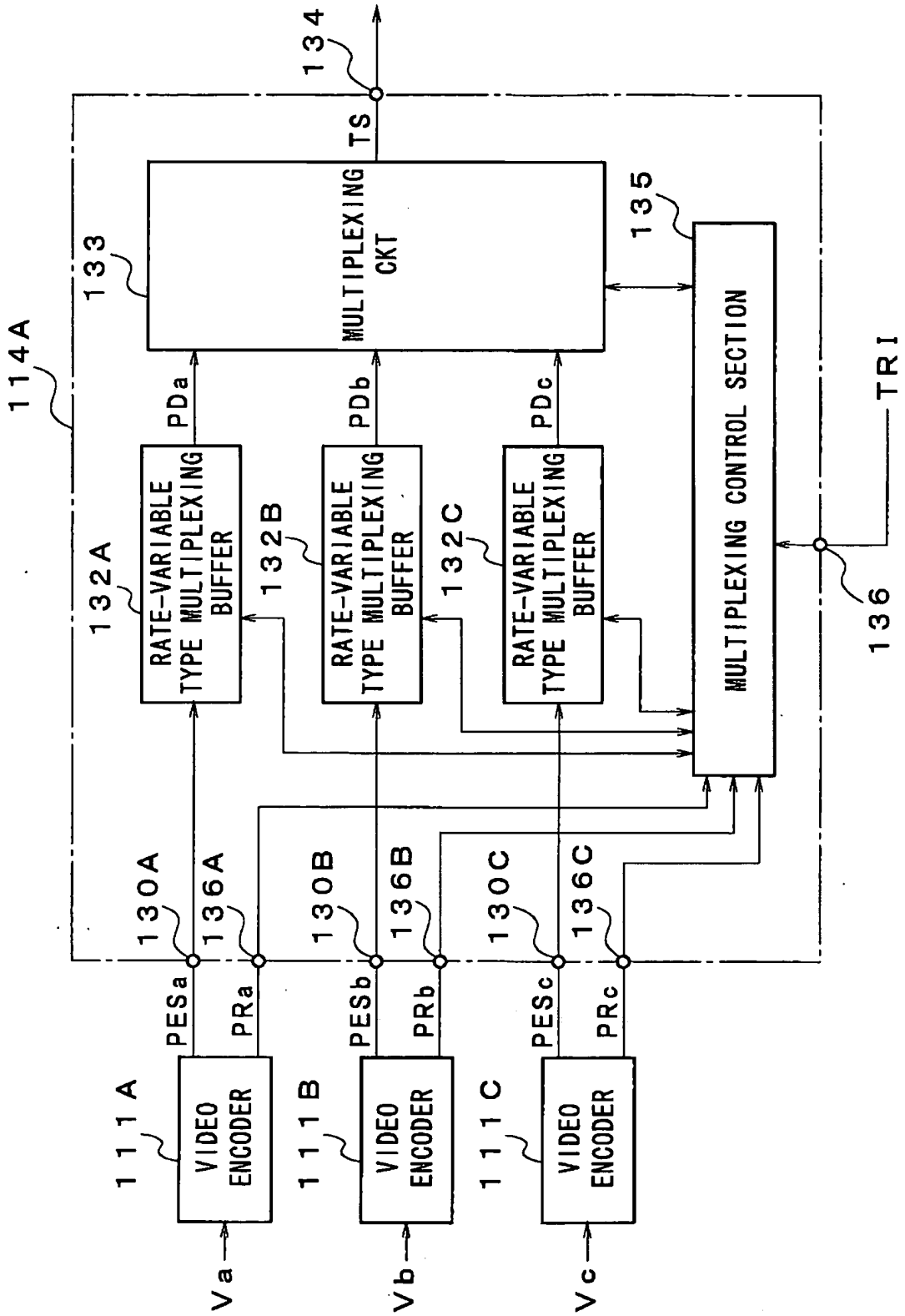

114A
134
TS
133
MULTIPLEXING CKT
135
MULTIPLEXING CONTROL SECTION
TRI
136
PDa
PDb
PDc
132A
RATE-VARIABLE TYPE MULTIPLEXING BUFFER
132B
RATE-VARIABLE TYPE MULTIPLEXING BUFFER
132C
RATE-VARIABLE TYPE MULTIPLEXING BUFFER
130A
136A
130B
136B
130C
136C
PESa
PRa
PESb
PRb
PESc
PRc
111A
VIDEO ENCODER
111B
VIDEO ENCODER
111C
VIDEO ENCODER
Va
Vb
Vc

FIG. 13

PRIORITY : PESa>PESb>PESc

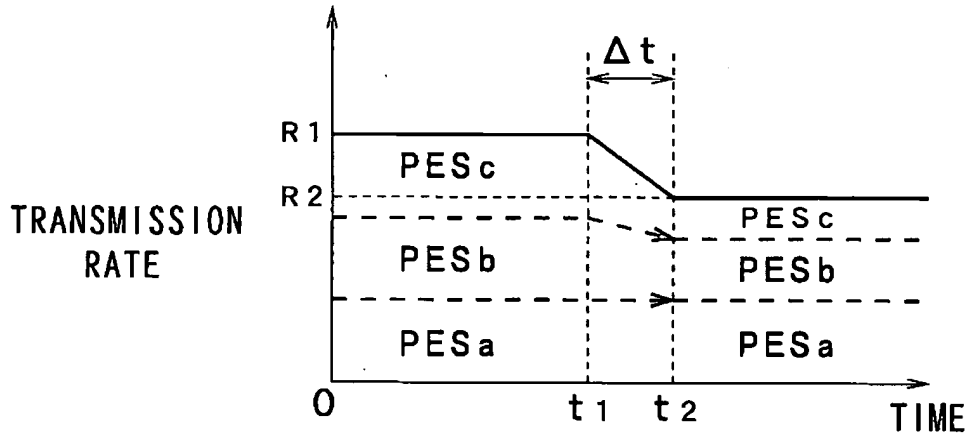
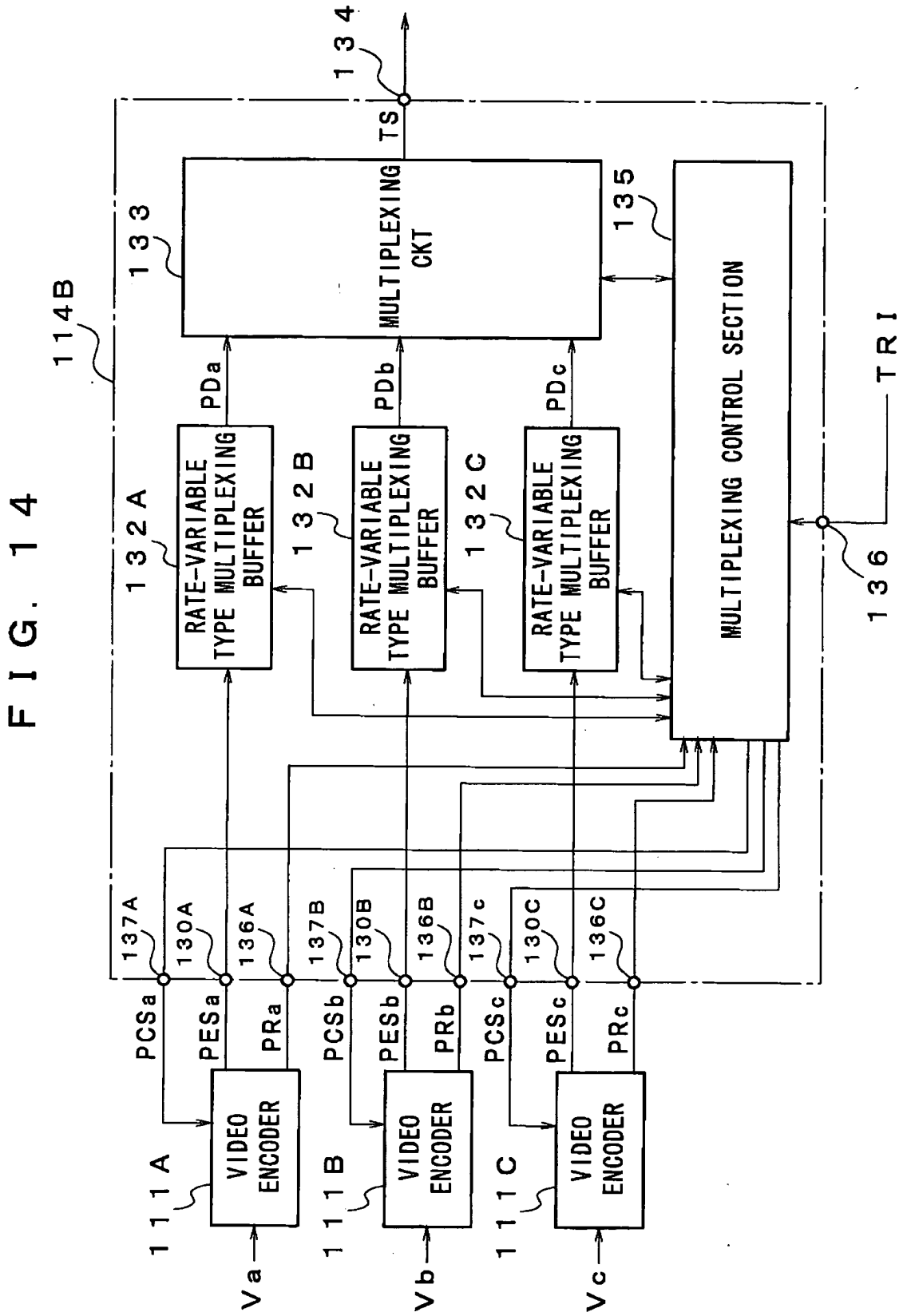


FIG. 14


114B
134
TS
133
MULTIPLEXING CKT
135
MULTIPLEXING CONTROL SECTION
TRI
136
PDa
PDb
PDc
132A
132B
132C
RATE-VARIABLE TYPE MULTIPLEXING BUFFER
RATE-VARIABLE TYPE MULTIPLEXING BUFFER
RATE-VARIABLE TYPE MULTIPLEXING BUFFER
137A
130A
136A
137B
130B
136B
137c
130C
136C
PCSa
PESa
PRa
PCSb
PESb
PRb
PCSc
PESc
PRc
111A
111B
111C
VIDEO ENCODER
VIDEO ENCODER
VIDEO ENCODER
Va
Vb
Vc

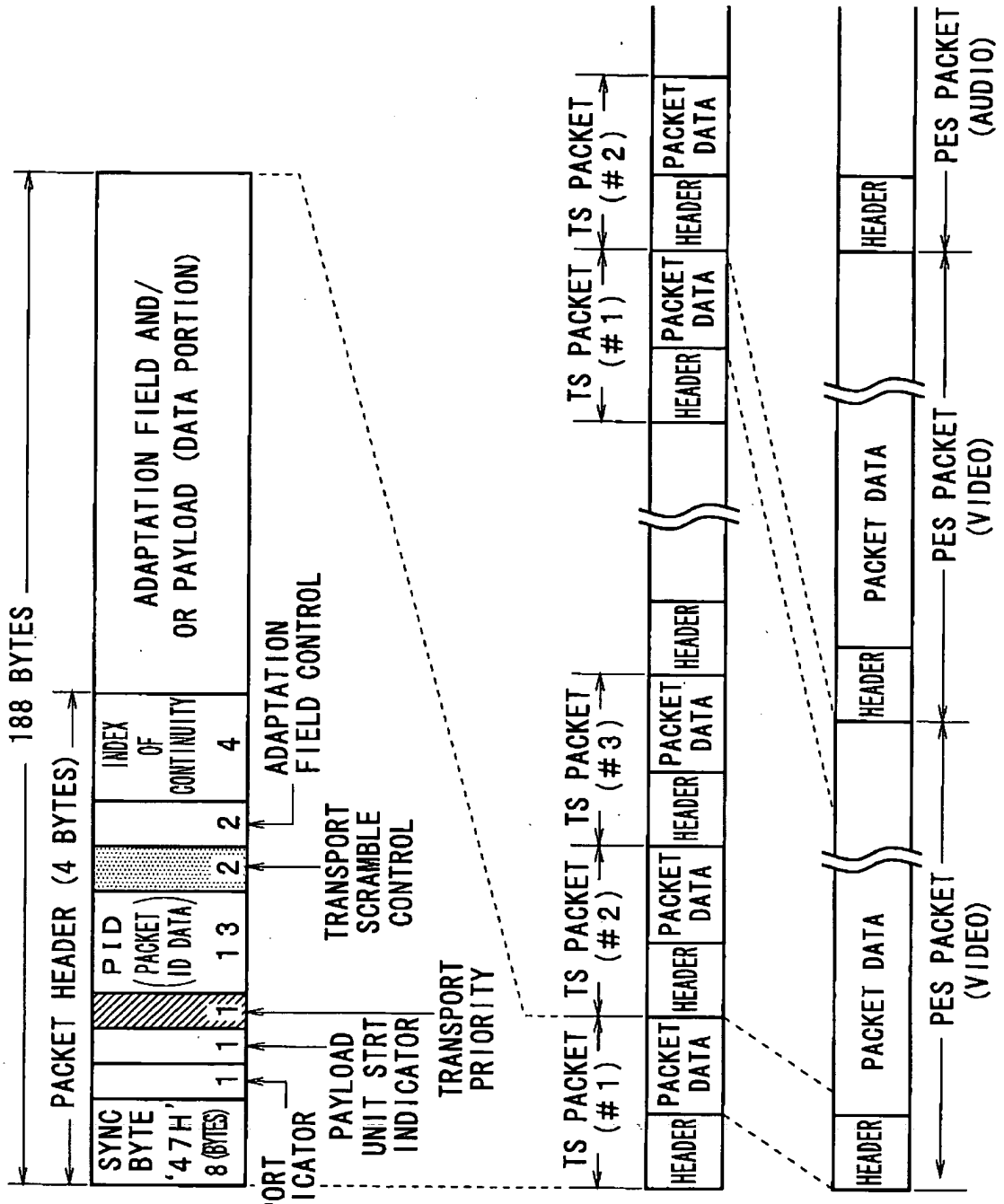
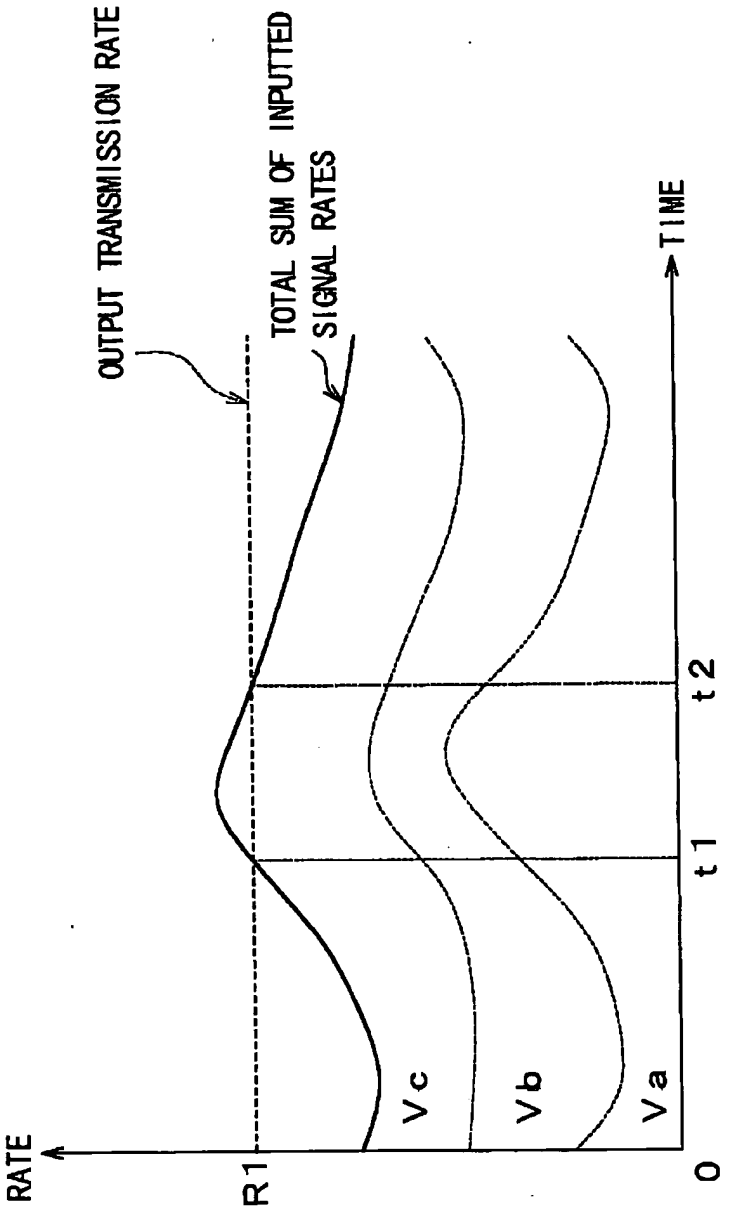


FIG. 15A

FIG. 15B

FIG. 15C

FIG. 16


OUTPUT TRANSMISSION RATE
TOTAL SUM OF INPUTTED SIGNAL RATES
TIME
RATE
R1
0
t1
t2
Va
Vb
Vc